

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Wurtsboro Lead Mine - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: POLREP #3
Final
Wurtsboro Lead Mine
A25U
Wurtsboro, NY
Latitude: 41.5939040 Longitude: -74.4444719

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Date: 4/5/2017

Reporting Period: 6/9/2016 to 03/28/2017

1. Introduction

1.1 Background

Site Number:	A25U	Contract Number:	EP-S2-15-02
D.O. Number:	0026	Action Memo Date:	10/16/2016
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	10/14/2015	Start Date:	10/14/2015
Demob Date:	1/12/2017	Completion Date:	1/12/2017
CERCLIS ID:	NYN000202035	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action at an Abandoned Lead/Zinc Mine.

1.1.2 Site Description

On September 4, 2015, EPA received a written request from the New York State Department of Environmental Conservation (NYSDEC) requesting the conditions at the Wurtsboro Lead Mine Site (Site) be evaluated for a possible CERCLA emergency response action. The Site (NYSDEC Site No. 353013) is a lead mine that was abandoned in 1962. EPAs review of the Site Characterization Report (July 2013) prepared for the NYSDEC, concluded that a human exposure pathway exists at the Site from direct contact to lead present in mine wastes. These wastes include mine tailings, millings, overburden rock and surface water discharges.

1.1.2.1 Location

The Site is located in the Wurtsboro Ridge State Forest in the Town of Mamakating, Sullivan County, New York and the Delaware and Hudson (D&H) Canal Linear Park. The area of contamination associated with the mine operation encompasses approximately 50-acres of the 1,000-acre State Forest.

1.1.2.2 Description of Threat

The principal threat to the public is direct contact with high levels of lead in the tailings piles, sediments and surface/ground water runoff. The tailings piles have been tested and found to contain Toxicity Characteristic Leaching Procedure (TCLP) concentrations of lead ranging from 5.3 to 268 parts per million (ppm). A TCLP concentration of 5ppm meets the regulatory criteria as a hazardous waste. Water samples collected at the lower mine discharge point have been found to contain lead concentrations which range from 410 to 710 parts per billion (ppb). The NYSDEC ecological Quality Standard for lead in surface water is 4.1ppb.

1.1.3 Removal Preliminary Assessment/Removal Site Inspection Results

On September 22 and 23, 2015, EPA met with NYSDEC representatives at the Site to inspect the upper and lower former operation areas. At that time, NYSDEC provided EPA with copies of validated sample results obtained from soil, tailings and water samples collected to date. Based on sample results provided by NYSDEC, the mine tailings, millings, overburden rock and surface water are considered CERCLA

designated hazardous substances as defined in section 101(14) of CERCLA, 42 U.S.C. § 9601(14). The Site is defined as a facility under section 101(9) of CERCLA, 42 U.S.C. § 9601(9). Conditions at the Site meet the requirements of Section 300.415(b) of the National Contingency Plan (NCP) for the undertaking of a CERCLA removal action.

On November 9 through 12, 2015, EPA with support from RST 3 and EPA's Emergency and Rapid Response Services (ERRS) contractor performed a Removal Assessment of the Site. At the former Ore Milling Area (OMA), 36 test pits were excavated by ERRS to the native clay horizon. RST 3 collected soil samples from each test pit in six inch intervals from three soil horizons: from the surface of native soil, at a peat layer, and one foot below native soil. The OMA was sampled using a 30 feet by 30 feet grid pattern.

From November 30 through December 16, 2015, RST 3 performed additional Removal Assessment sampling within the wetlands north, south, and west of the former OMA. The sampling event was conducted in order to delineate the extent of the contamination within these areas by expanding the November 2016 OMA sampling grid pattern. A total of 624 soil samples were collected by RST 3 from 215 sampling locations at depths 0 to 6, 12 to 18, and 18 to 24 inches below ground surface (bgs). The soil samples were submitted for laboratory analysis of TAL metals. A portion of the samples were analyzed for Hg in addition to TAL metals analysis. Five waste characterization samples were collected for TCLP and Hg analyses from sections of the grid central to the wetland areas of the Site. A total of 14 surface water samples were collected from source water discharging into the D&H Canal. The soil samples were compared with NYSDEC RUSCOs and EPA RMLs, and waste characterization samples were compared with EPA TCLP MCCs. Analytical results were consistent with the those obtained from the prior sampling event conducted on November 9 through 12, 2015 which indicated the presence of one or more TAL metals at concentrations above the NYSDEC RUSCO and/or EPA RML in soil samples, and specifically lead concentration was in exceedance of both the NYSDEC RUSCO and EPA RML in more than 50% of the soil samples. Lead was the only TCLP metal detected in the waste characterization samples, and one or more surface water samples indicated the presence of several TAL metals, including lead.

On March 21 and 22, 2016, RST 3 conducted soil sampling as part of additional Removal Assessment activities in order to delineate locations adjacent to the tailings piles at different elevations on the mountain. A total of 84 soil samples were collected from 64 sampling locations at depths 0 to 6 and 6 to 12 inches bgs. The soil samples were submitted for laboratory analysis of TAL metals. Analytical results were compared with the NYSDEC RUSCOs and EPA RMLs. The concentration of TAL metals was detected above the NYSDEC RUSCOs and/or EPA RMLs. Specifically, lead was detected above both the NYSDEC RUSCO and EPA RML in more than 50 % of the soil samples. Refer to Appendix 2: Removal Assessment Sampling Trip report, July 26, 2016.

Based upon the analytical results from all the prior Removal Assessments conducted at the Site, EPA determined that on-site areas subject to high human traffic were of primary concern, specifically areas along the lower railroad and tow path that run parallel to the D&H Canal and the OMA. Consequently, on May 16, 2016, RST 3 performed additional soil sampling activities within these additional areas to conclude the Removal Assessment of the Site. Utilizing the same grid from the November 2015 sampling event, a total of 252 soil samples were collected by RST 3 from 120 sampling locations at depths 0 to 2 and 6 to 12 inches bgs. The soil samples were submitted for laboratory analysis of TAL metals. Analytical results were compared with the NYSDEC RUSCOs and EPA RMLs. The concentration of TAL metals, including lead was detected above the NYSDEC RUSCOs and/or EPA RMLs at discontinuous locations along these accessible areas.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On September 23, 2015, verbal authorization was granted by the Region 2 Division Director to initiate a removal action at the Site. On October 6, 2015, written confirmation of the verbal authorization was submitted to the Division Director. On October 31, 2016, an Action Memorandum was signed which authorized a Change of Scope, Ceiling Increase and 12-Month Exemption. The Removal Action activities authorized under this Action Memorandum included:

- : Placing a protective cap over consolidated OMA wastes;
- : Placing a protective cap over portions of the lower railroad bed and D&H Canal towpath;
- : Installing security fencing and signage.

2.1.2 Response Actions to Date

-Response actions which occurred prior to December 15, 2015 can be found in POLREP#1, dated January 6, 2016.

-Response action which occurred from December 15, 2015 through June 8, 2016 can be found in POLREP#2, dated June 8, 2016.

-Since June 8, 2016, response actions have included the following:

:On November 9, 2016, EPA, Weston Solutions and ERRS personnel mobilized to the Site to implement the protective measures authorized in the October 31, 2016 Action Memorandum.

:On November 10, 2016, written approval of the Removal Action Work plan was provided by the NYSDEC;

:On November 29, 2016, the protective measures to cap lead-contaminated material in the OMA, on the lower railroad and towpath was completed. To accomplish this action, 2000-tons of 2-inch crushed stone was utilized in the OMA, 500-tons of 2-inch crushed stone along the lower railroad and 160-tons of Item 4 along the D&H Canal towpath.

:On December 1, 2016, a LIDAR survey of the property was completed.

:On December 22, 2016, surface water samples were collected from previously sampled locations adjacent to the OMA to document conditions following the installation of the protective cap.

:On December 27, 2016, installation of security fencing and access gates were completed.

:On January 12, 2017, a final Site inspection was conducted and included personnel from EPA, NYSDEC and ERRS.

:On March 28, 2017, the LIDAR Technical Memorandum was completed and submitted to the OSC.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

: ORC is evaluating enforcement options and PRPs.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

No additional Site activities are planned.

2.2.1.1 Planned Response Activities

There are no planned response activities.

2.2.1.2 Next Steps

Transferring Site monitoring responsibilities to NYSDEC. Finalizing the Removal Action Report and discussing the potential for future work with NYSDEC.

2.2.2 Issues

2.3 Logistics Section

Not Applicable

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$700,000.00	\$279,176.00	\$420,824.00	60.12%
Intramural Costs				
Total Site Costs	\$700,000.00	\$279,176.00	\$420,824.00	60.12%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

Not Applicable

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

-New York State Department of Environmental Conservation (NYSDEC)

-Division of Lands and Forests;

-Division of Fish, Wildlife and Marine Resources;

-Division of Environmental Remediation;

-Division of Mineral Resources (Region 3)

-Sullivan County

4. Personnel On Site

None.

5. Definition of Terms

Not Applicable

6. Additional sources of information

6.1 Internet location of additional information/report

https://www.epaosc.org/site/site_profile.aspx?site_id=11295

6.2 Reporting Schedule

7. Situational Reference Materials

No information available at this time.